

In the claims:

1-43. (Canceled)

44. (Original) A method of determining a chromosome breakpoint, comprising the steps of:

providing a pair of separate, labeled, single copy nucleic acid probes of predetermined sequence and designed to respectively hybridize on opposite sides of said breakpoint;

reacting said pair of probes with a chromosomal target sequence

containing said breakpoint, and causing the probes to hybridize to the target sequence;

and

detecting said hybridized probes as a way of ascertaining the location of said breakpoint.

45. (Original) The method of claim 44, including a step of providing a plurality of separate, labeled, single copy nucleic acid probes of predetermined sequence designed to hybridize on one side of said breakpoint, and providing a plurality of separate, labeled, single copy nucleic acid probes of predetermined sequence designed to hybridize on the other side of said breakpoint.